



Aquaculture and Wild Catch

Australia's aquaculture and wild catch industry has a strong reputation for producing high quality and safe products. This is underpinned by a dedicated workforce equipped with an array of skills for operating collaboratively across the value chain – including up- and down-stream suppliers, fisheries, aquaculture farms, traders,

seafood processors and retailers. Across these environments there is a commitment to skills to support biosecurity, sustainability, aquatic animal health, and food safety standards. In continuing to improve these skills, Australia's aquaculture and wild catch industry draws on the latest in science and technology, including automation and robotics.



It is also informed by traditional knowledge and skills, including from the world's oldest civilisation, Aboriginal and Torres Strait Islanders, who have a long history of connection to seas and waterways.

The national skills standards and qualifications for this industry are overseen by the Aquaculture and Wild Catch Industry Reference Committee (IRC).

Employs over 18,069 people³¹

Over 6,304 businesses³²

Over \$8.57 billion in revenue³³

Contributes \$1.63 billion to Gross Domestic Product³⁴

Aquaculture 'is the fastest-growing food industry in the world'³⁵

³¹ IBISWorld Industry Wizard (2022)

³² IBISWorld Industry Wizard (2022)

³³ IBISWorld Industry Wizard (2022)

³⁴ IBISWorld Industry Wizard (2022)

³⁵ Parliament of the Commonwealth of Australia (2022); Supporting a strong future for Australian aquaculture; House of Representatives Standing Committee on Agriculture and Water Resources; p.3 & v.

Industry Skills Report

This year, Skills Impact prepared an Aquaculture and Wild Catch Industry Skills Report, at the request of the Industry Reference Committee (IRC), to provide in-depth information about industry-specific issues impacting skills and training.

It has been a time of rapid change and complex challenges for the aquaculture and wild catch industry, with the value chain adapting to continue meeting consumer needs. Industry has navigated disruptions caused by COVID-19, trade disputes with China, and rising input, fuel and freight costs. Industry continues to depend upon its skills in biosecurity, which have helped navigate major outbreaks of white spot disease in prawns and pacific oyster mortality syndrome in recent years. Skills in traceability, provenance and country of origin labelling are also crucial to cater to consumers who are keen to know where their seafood is coming from and what conditions it has been produced in.

There is increasing recognition of Aboriginal and Torres Strait Islander peoples' participation in the seafood industry and of their longstanding and profound cultural connections with seas and waterways. This is seeing greater business development opportunities, inter-community partnerships and self-determination. Activities by Aboriginal and Torres Strait Islander peoples are often at the forefront of emerging sectors, coinciding with national demand for greater transparency around provenance and sustainable practices.

The skills needs of the industry are being successfully met by the training package, with recent updates

to incorporate skills for working with new digital technologies are delivering results. However, there are still challenges in training access and attracting and retaining workers. It is important that accurate data around skills and jobs is available for future planning and strategies to attract and retain workers, particularly data at a regional level to reflect where the industry is located.

Aquaculture is the 'fastest growing food industry in the world'³⁶, so the opportunities within the industry are significant. A situational analysis conducted by the Cooperative Research Centre for Northern Australia (CRCNA)³⁷ established that, by 2030, the aquaculture industry has potential to grow its current production value by five times, which would bring around 1,400 to 2,300 new jobs. The CRCNA assert that this can only occur with ongoing support and planning, infrastructure, research, development and extension, and investment. Skills impact has been contributing to the support and planning work during 2021-2022 through the CRNCA funded Building the Northern Australia Aquaculture Industry project (see below).

Realising the potential of these planned investments in the regions is likely to help attract and retain workers. However, such investments can be a risk, particularly where there are not already-established populations and industries, with

associated education opportunities that lift the skill levels of local populations and associated lifestyle quality issues. Various studies of regional, rural and remote challenges emphasise educational opportunities as central to a regionalisation agenda. This is because good schools and other educational services are attractive to families considering moving to regions. They also enable social mobility and develop the skilled workers that industries require.

The Aquaculture and Wild Catch Industry Reference Committee has identified key priorities in skills and training for the consideration of industry, including:

- support for engaging with employers and RTOs to address training delivery barriers to seafood industry qualifications, potentially including the development of nationally consistent assessment and training materials, and participation in industry attraction and retention programs working with the National Careers Institute and relevant federal, state, territory and industry bodies
- working with the National Skills Commission on accuracy of skills and jobs data in these sectors, including at a regional level, which provides a more accurate representation of skills and training needs than the equivalent at a national or state/territory level.

36 Parliament of the Commonwealth Of Australia (2022); *Supporting a strong future for Australian aquaculture*; House of Representatives Standing Committee on Agriculture and Water Resources; p.3 & v.

37 CRCNA (2020); *Northern Australia aquaculture situational analysis 2020*



Case study

Increasing recognition for Aboriginal and Torres Strait Islander Peoples' participation in the fishing industry

At the 2021 World Fisheries Congress, Matthew Osborne (Program Leader, Aquaculture and Regional Development in Northern Territory Fisheries) promoted recognition of the importance of the fishing industry for Aboriginal and Torres Strait Islander people, and the contributions that they continue to make. Indigenous fishing adds value and diversity to the Australian fishing community in its blending of cultural, recreational, commercial, and environmental practices. It has the ability to connect sectors and support a collective representation of Australia's fisheries.

Various programs have been established in northern Australia, including through funded research dedicated to progressing Indigenous participation in fisheries

decision-making, capacity building and economic development. Projects have also been developed and funded across Australia to empower communities and support change, which requires strategies both to impact attitudinal change and regulator policies.

There are recent examples of greater collaboration between Aboriginal and Torres Strait Islander people, government, industry and other fishing stakeholders. These include the development of culturally aligned, community-based fishing operations in the Northern Territory, where Aboriginal people are building coastal fishing businesses and supplying their communities with fresh, affordable seafood. This is resulting in economic development and self-

determination opportunities and enabling the continuation of cultural practices.

It must be noted that there are persisting challenges in unlocking opportunities for Aboriginal and Torres Strait Islander peoples due to limited funding and investment for Indigenous aquaculture projects, education provision shortcomings, a lack of tailored resources, and inadequate support for traditional owner organisations to generate substantive outcomes.



Projects

Substantial work was undertaken in 2018-2019 to update skills standards and qualifications for the aquaculture and wild catch industry. This included work to incorporate the essential skills for biosecurity, regulation and compliance. In 2019-2020 projects were undertaken to address some key skills gaps in underwater technologies and working with crocodiles. Research and consultation showed no further gaps in the skills standards and therefore no projects were identified for 2021-22.

Visit skillsimpact.com.au/completed-projects for further details.



Case study

Building the Northern Australia Aquaculture Industry

Skills Impact participated in a project funded by the Cooperative Research Centre for Northern Australia (CRCNA) and led by James Cook University to follow-up on the analysis of workforce requirements undertaken during 2020 (Skills Impact also provided input into this work).

Aquaculture employers have highlighted the need to build skills to meet industry growth, including aligned training for industry needs and professional development opportunities. They are also seeking ways to promote career opportunities and sustainably deliver needed training in northern Australian, particularly to regional communities.

The project aimed to define the industry's need for specific skills and education levels, map existing training and education providers, and propose improved models for education and training delivery. The work has been completed and should be published in the near future. Keep an eye out for the report on the CRCNA website.